

Application No. 10/822,057
Applicant: Robert J. Tynik
Preliminary Amendment

Amendments to the Claims:

The present listing of the claims replaces all past listings of the claims:

Listing of claims:

Claim 1. (Currently Amended) An organoammonium salt of a Group VI metal, comprising the reaction product of a metal acid hydrate of formula $\text{MO}_4\text{H}_2\cdot\text{H}_2\text{O}$ with at least one alkyl amine, wherein M is selected from the group consisting of tellurium, selenium, and tungsten and molybdenum.

Claim 2. (Original) The organoammonium salt of claim 1, wherein the metal acid hydrate is the reaction product of a sodium metal dihydrate of formula $\text{Na}_2\text{MO}_4\cdot 2\text{H}_2\text{O}$ and an acid.

Claim 3. (Currently Amended) The organoammonium salt of claim 1, wherein the reaction product of the metal acid hydrate and the alkyl amine is formed by mixing and refluxing.

Claim 4. (Original) The organoammonium salt of claim 1, wherein the alkyl amine is of the formula $\text{R}^1\text{R}^2\text{NH}$, wherein R^1 and R^2 may be identical or different, and are selected from the group consisting of hydrogen, linear or branched, saturated or unsaturated $\text{C}_2\text{-C}_{40}$ alkyl, $\text{C}_3\text{-}$

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C₄₀ cycloalkyl, C₆-C₄₀ aryl, C₇-C₄₀ alkaryl and aralkyl.

Claim 5. (Original) The organoammonium salt of claim 4, wherein R¹ and R² are selected from the group consisting of hydrogen, and a linear or branched, saturated or unsaturated C₂-C₄₀ alkyl.

Claim 6. (Original) The organoammonium salt of claim 4, wherein R¹ and R² is a linear or branched, saturated or unsaturated C₅-C₁₈ alkyl.

Claim 7. (Currently Amended) The organoammonium salt of claim 4, wherein R¹R²NH is di-tridecylamine and M is tungsten ~~or molybdenum~~.

Claim 8. (Currently Amended) The organoammonium salt of claim 4, wherein R¹R²NH is di-n-octylamine, and M is tungsten ~~or molybdenum~~.

Claim 9. (Currently Amended) The organoammonium salt of claim 1, wherein M is tungsten ~~or molybdenum~~.

Claim 10. (Original) The organoammonium salt of claim 1, wherein at least one alkyl amine further comprises two different dialkyl amines.

Claim 11. (Currently Amended) A lubricating composition comprising

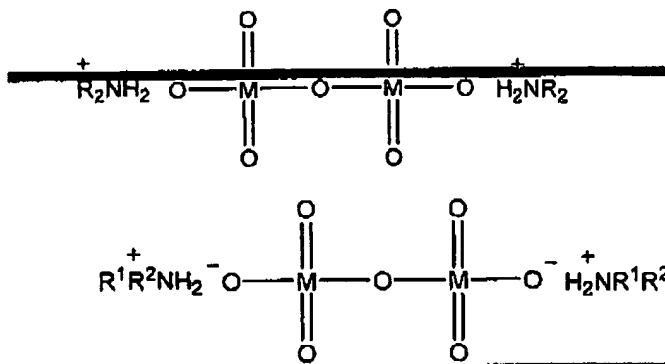
(a) a major amount of a lubricating oil, and

(b) ~~the organoammonium salt of claim 1 in an amount between~~ about 0.025 to 5.0 wt.-%, based on the total weight of the lubricating composition, of an organoammonium salt of a Group VI metal, comprising the reaction product of a metal acid hydrate of formula $\text{MO}_4\text{H}_2\cdot\text{H}_2\text{O}$ with at least one alkyl amine, wherein M is selected from the group consisting of tellurium, selenium, and tungsten.

Claim 12. (Original) The lubricating composition of claim 11, wherein the concentration of the organoammonium salt is between about 0.05 to 2.0 wt.-%.

Claim 13. (Original) The lubricating composition of claim 12, wherein the concentration of the organoammonium salt is between about 0.09 to 0.5 wt.-%.

Claim 14. (Currently Amended) An organoammonium metal compound having the formula



wherein (a) M is an ion of a ~~Group VI metal~~ selected from the group consisting of tellurium, selenium and tungsten; and

(b) R¹ and R² may be identical or different, and are selected from the group consisting of hydrogen, linear or branched, saturated or unsaturated C₂-C₄₀ alkyl, C₃-C₄₀ cycloalkyl, C₆-C₄₀ aryl, C₇-C₄₀ alkaryl and aralkyl.

Claim 15. (Original) The organoammonium metal compound of claim 14 wherein R¹ and R² is hydrogen, or a linear or branched, saturated or unsaturated C₂-C₄₀ alkyl.

Claim 16. (Original) The organoammonium metal compound of claim 14 wherein R¹ and R² is a linear or branched, saturated or unsaturated C₅-C₁₈ alkyl.

Claim 17. (Original) The organoammonium metal compound of claim 14 wherein R¹ and R² is a linear or branched, saturated or unsaturated C₅-C₁₈ alkyl.

Claim 18. (Currently Amended) The organoammonium metal compound of claim 14 wherein R¹R²NH₂⁺ is di-tridecylammonium and M is tungsten ~~or molybdenum~~.

Claim 19. (Currently Amended) The organoammonium metal compound of claim 14 wherein R¹R²NH₂⁺ is di-n-octylammonium and M is tungsten ~~or molybdenum~~.

Claim 20. (Currently Amended) The organoammonium metal compound of claim 14 wherein M is selected from the group consisting of tellurium, selenium, and tungsten ~~and~~ molybdenum.

Claim 21. (Currently Amended) A process for preparing an organoammonium salt of a Group VI metal, comprising the step of:

reacting a metal acid hydrate of formula MO₄H₂·H₂O with at least one alkyl amine, wherein M is selected from the group consisting of tellurium, selenium, and tungsten ~~and~~ molybdenum.

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Claim 22. (Original) The process of claim 21, further comprising the step of preparing the metal acid hydrate by reacting a sodium metal dihydrate of formula $\text{Na}_2\text{MO}_4 \cdot 2\text{H}_2\text{O}$ and an acid.

Claim 24 ~~23~~. (Original) The process of claim 21, wherein the alkyl amine is of the formula $\text{R}^1\text{R}^2\text{NH}$, wherein R^1 and R^2 may be identical or different, and are selected from the group consisting of hydrogen, linear or branched, saturated or unsaturated $\text{C}_2\text{-C}_{40}$ alkyl, $\text{C}_3\text{-C}_{40}$ cycloalkyl, $\text{C}_6\text{-C}_{40}$ aryl, $\text{C}_7\text{-C}_{40}$ alkaryl and aralkyl.

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